Amendments to the Claims

This listing of the claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

- 1-3 (cancelled)
- 4. (currently amended) A reproduction apparatus for reproducing information from an information storage medium, wherein the information storage medium comprises:

a recording information area; and

an aggregate attribute information area,

wherein the recording information area comprises:

a partial recording group information area where one or more partial recording group information objects are recorded, each of the partial recording group information objects including one or more unit audio information objects which are logically defined; and

a control data area where control data including partial recording group information attribute information is recorded, the control data corresponding to each of the partial recording group information objects and controlling the one or more unit audio information objects included in the corresponding partial recording group information objects in a predetermined order, the partial recording group information attribute information indicating attributes of the one or more all of the unit audio information objects included in the group recording information objects and wherein

one or more unit audio information attribute information pieces are collectively recorded in the aggregate attribute information area, the one or more unit audio information attribute information pieces corresponding to each of the unit audio information objects and indicating attributes of the corresponding unit audio information objects respectively, and wherein the aggregate attribute information area is formed at a position on the information storage medium such that the one or more unit audio

information attribute information pieces can be detected prior to the one or more partial recording group information objects and the control data.

wherein the one or more unit audio information attribute information pieces are recorded in a one-to-one correspondence between each of attributes and each of the corresponding unit audio information and the reproduction apparatus comprises:

a reading unit which reads information from the information storage medium; a storage unit which stores the aggregate attribute information read by the reading unit;

an input unit which receives, from a user, a reproduction instruction designating the unit audio information objects to be reproduced successively; and

a reproduction unit which sets the attribute for the reproduction based on the aggregate attribute information stored in the storage unit and reproduces the unit audio information objects designated by the user in accordance with the attribute set, wherein said reproduction unit comprises:

an obtaining unit which obtains the attributes corresponding to the unit audio information objects designated by the user from the aggregate attribute information stored in the storage unit;

a determining unit which determines whether or not the obtained attributes of the unit audio information objects to be successively reproduced are identical; and an attribute change unit which starts an attribute setting of the unit audio information object to be reproduced next immediately after the reproduction of the unit audio information object currently reproduced, if the determining unit determines that the attributes are different.

5. (previously presented) The reproduction apparatus according to claim 4, wherein the reproduction unit further comprises a search unit which transfers the reading unit to a recording position on the information storage medium of the unit audio information object to be reproduced next immediately after the reproduction of the unit audio information object currently reproduced, and allows the reproduction unit to start

reproduction of the unit audio information object to be reproduced next after a predetermined waiting time has passed from the start of the transfer of the reading unit.

- 6. (previously presented) The reproduction apparatus according to claim 5, wherein the waiting time is longer than a time required to change the set attribute by the attribute change unit.
- 7. (currently amended) A reproduction apparatus for reproducing information from an information storage medium, wherein the information storage medium comprises:

a recording information area and

an aggregate attribute information area,

wherein the recording information area comprises:

a partial recording group information area where one or more partial recording group information objects are recorded, each of the partial recording group information objects including one or more unit audio information objects which are logically defined; and

a control data area where control data including partial recording group information attribute information is recorded, the control data corresponding to each of the partial recording group information objects and controlling the one or more unit audio information objects included in the corresponding partial recording group information objects in a predetermined order, the partial recording group information attribute information indicating attributes of the one or more all of the unit audio information objects included in the group recording information objects and wherein

one or more unit audio information attribute information pieces are collectively recorded in the aggregate attribute information area, the one or more unit audio information attribute information pieces corresponding to each of the unit audio information objects and indicating attributes of the corresponding unit audio information objects respectively, and wherein the aggregate attribute information area is formed at a position on the information storage medium such that the one or more unit audio information attribute information pieces can be detected prior to the one or more partial recording group information objects and the control data,

and the reproduction apparatus comprises:

wherein the one or more unit audio information attribute information pieces are recorded in a one-to-one correspondence between each of attributes and each of the corresponding unit audio information

a reading unit which reads information from the information storage medium;

a table producing unit which obtains the aggregate attribute information corresponding to the unit audio information objects recorded on the information storage medium from the reading unit and produces an aggregate attribute information table;

a storage unit which stores the aggregate attribute information table produced by the table producing unit;

an input unit which receives, from a user, a reproduction instruction designating the unit audio information objects to be reproduced successively; and

a reproduction unit which sets the attribute for the reproduction based on the aggregate attribute information table stored in the storage unit and reproduces the unit audio information objects designated by the user in accordance with the attribute set, wherein said reproduction unit comprises:

an obtaining unit which obtains the attributes corresponding to each of the unit audio information objects designated by the user from the aggregate attribute information table stored in the storage unit;

a determining unit which determines whether or not the obtained attributes of the unit audio information objects to be successively reproduced are identical; and

an attribute change unit which starts an attribute setting of the unit audio information object to be reproduced next immediately after the reproduction of the unit audio information object currently reproduced, if the determining unit determines that the attributes are different.

8. (currently amended) The reproduction apparatus according to claim 7, wherein the reproduction unit further comprises a search unit which transfers the reading unit to a recording position on the information storage medium of the unit audio information object to be reproduced next immediately after the reproduction of the unit audio information object currently reproduced, and allows the reproduction unit to start

reproduction of the unit audio information object to be reproduced next after a predetermined waiting time has passed from the start of the transfer of the reading unit.

- 9. (previously presented) The reproduction apparatus according to claim 8, wherein the waiting time is longer than a time required to change the set attribute by the attribute change unit.
- 10. (currently amended) A reproduction method for reproducing information from an information storage medium, wherein the information storage medium comprises:

a recording information area; and

an aggregate attribute information area,

wherein the recording information area comprises:

a partial recording group information area where one or more partial recording group information objects are recorded, each of the partial recording group information objects including one or more unit audio information objects which are logically defined; and

a control data area where control data including partial recording group information attribute information is recorded, the control data corresponding to each of the partial recording group information objects and controlling the one or more unit audio information objects included in the corresponding partial recording group information objects in a predetermined order, the partial recording group information attribute information indicating attributes of the one or more all of the unit audio information objects included in the group recording information objects and wherein

one or more unit audio information attribute information pieces are collectively recorded in the aggregate attribute information area, the one or more unit audio information attribute information pieces corresponding to each of the unit audio information objects and indicating attributes of the corresponding unit audio information objects respectively, and wherein the aggregate attribute information area is formed at a position on the information storage medium such that the one or more unit audio information attribute information pieces can be detected prior to the one or more partial recording group information objects and the control data.

wherein the one or more unit audio information attribute information pieces are recorded in a one-to-one correspondence between each of attributes and each of the corresponding unit audio information

and the reproduction method comprises:

reading information from the information storage medium;

storing the aggregate attribute information read in the reading processing storage unit;

receiving, from a user, a reproduction instruction designating the unit audio information objects to be reproduced successively; and

setting the attribute for the reproduction based on the aggregate attribute information stored in the storage unit and

reproducing the unit audio information objects designated by the user in accordance with the attribute set,

wherein reproducing the unit audio information comprises:

obtaining the attributes corresponding to the unit audio information objects designated by the user from the aggregate attribute information stored in the storage unit;

determining whether or not the obtained attributes of the unit audio information objects to be successively reproduced are identical; and

starting an attribute setting of the unit audio information object to be reproduced next immediately after the reproduction of the unit audio information object currently reproduced, if it is determined that the attributes are different.

11. (currently amended) The reproduction method according to claim 10, wherein the reproduction method further emprised comprises a search process, the search process comprising:

transferring an information reading position to a recording position on the information storage medium of the unit audio information object to be reproduced next immediately after the reproduction of the unit audio information object currently reproduced; and

starting reproduction of the unit audio information object to be reproduced next after a predetermined waiting time has passed from the start of the transfer of the information reading position.

- 12. (previously presented) The reproduction method according to claim 11, wherein the waiting time is longer than a time required to change the set attribute.
- 13. (currently amended) A reproduction method for reproducing information from an information storage medium, wherein the information storage medium comprises:

a recording information area; and

an aggregate attribute information area,

wherein the recording information area comprises:

a partial recording group information area where one or more partial recording group information objects are recorded, each of the partial recording group information objects including one or more unit audio information objects which are logically defined; and

a control data area where control data including partial recording group information attribute information is recorded, the control data corresponding to each of the partial recording group information objects and controlling the one or more unit audio information objects included in the corresponding partial recording group information objects in a predetermined order, the partial recording group information attribute information indicating attributes of the one or more all of the unit audio information objects included in the group recording information objects and wherein

one or more unit audio information attribute information pieces are collectively recorded in the aggregate attribute information area, the one or more unit audio information attribute information pieces corresponding to each of the unit audio information objects and indicating attributes of the corresponding unit audio information objects respectively, and wherein the aggregate attribute information area is formed at a position on the information storage medium such that the one or more unit audio information attribute information pieces can be detected prior to the one or more partial recording group information objects and the control data.

wherein the one or more unit audio information attribute information pieces are recorded in a one-to-one correspondence between each of attributes and each of the corresponding unit audio information objects and the reproduction method comprises:

reading information from the information storage medium;

obtaining the aggregate attribute information corresponding to the unit audio information objects recorded on the information storage medium from the reading unit to produce an aggregate attribute information table;

storing the produced aggregate attribute information table;

receiving, from a user, a reproduction instruction designating the unit audio information objects to be reproduced successively;

setting the attribute for the reproduction based on the aggregate attribute information table stored in the strange unit; and

reproducing the unit audio information objects designated by the user in accordance with the attribute set,

wherein reproducing the unit audio information objects comprises:

obtaining the attributes corresponding to corresponding to the unit audio information objects designated by the user from the aggregate attribute information table stored in the storage unit;

determining whether or not the attributes of the unit audio information objects to be successively reproduced are identical; and

starting an attribute setting of the unit audio information object to be reproduced next immediately after the reproduction of the unit audio information object currently reproduced, if it is determined that the attributes are different.

14. (previously presented) The reproduction method according to claim 13, wherein the reproduction method further comprises a search process, the search process comprising:

transferring an information reading position to a recording position on the information storage medium of the unit audio information object to be reproduced next immediately after the reproduction of the unit audio information object currently reproduced; and

starting reproduction of the unit audio information object to be reproduced next after a predetermined waiting time has passed from the start of the transfer of the information reading position.

15. (previously presented) The reproduction method according to claim 14, wherein the waiting time is longer than a time required to change the set attribute.

16. - 43. (canceled)

44. (currently amended) An information storage medium comprising:

a recording information area and

an aggregate attribute information area,

wherein the recording information area comprises:

a partial recording group information area where one or more partial recording group information objects are recorded, each of the partial recording group information objects including one or more unit audio information objects which are logically defined; and

a control data area where control data including partial recording group information attribute information is recorded, the control data corresponding to each of the partial recording group information objects and controlling the one or more unit audio information objects included in the corresponding partial recording group information objects in a predetermined order, the partial recording group information attribute information indicating attributes of the one or more all of the unit audio information objects included in the group recording information objects and wherein

one or more unit audio information attribute information pieces are collectively recorded in the aggregate attribute information area, the one or more unit audio information attribute information pieces corresponding to each of the unit audio information objects and indicating attributes of the corresponding unit audio information objects respectively, and wherein the aggregate attribute information area is formed at a position on the information storage medium such that the one or more unit audio

information attribute information pieces can be detected prior to the one or more partial recording group information objects and the control data.

wherein the one or more unit audio information attribute information pieces are recorded in a one-to-one correspondence between each of attributes and each of the corresponding unit audio information.

- 45. (previously presented) The information storage medium according to claim 44, wherein the aggregate attribute information area is formed within a management information area where management information is recorded, the management information being information to manage information recorded on the information storage medium.
- 46. (currently amended) The information storage medium according to claim 44, wherein at least one unit audio information attribute information piece comprises:

information indicating a sampling frequency of at least one unit audio information object; and

a quantization bit number of the at least one unit audio information object corresponding to the at least one unit audio information attribute information piece.

47. (currently amended) The information storage medium according to claim 45, wherein at least one unit audio information attribute information piece comprises:

information indicating a sampling frequency of at least one unit audio information object; and

a quantization bit number of the at least one unit audio information object corresponding to the at least one unit audio information attribute information piece.

48. (currently amended) The information storage medium according to claim 44, wherein the partial recording group information attribute information comprises:

a number of at least one unit audio information object; playback time of the at least one unit audio information object;

a start address of the at least one unit audio information object on the information storage medium; and

an end address of the at least one unit audio information on the information storage medium; and

a corresponding unit audio information attribute information piece.

49. (currently amended) The information storage medium according to claim 45, wherein the partial recording group information attribute information comprises:

a number of at least one unit audio information object;

playback time of the at least one unit audio information object;

a start address of the at least one unit audio information object on the information storage medium; and

an end address of the at least one unit audio information on the information storage medium; and

a corresponding unit audio information attribute information piece.

50. (currently amended) The information storage medium according to claim 46, wherein the partial recording group information attribute information comprises:

a number of at least one unit audio information object;

playback time of the at least one unit audio information object;

a start address of the at least one unit audio information object on the information storage medium; and

an end address of the at least one unit audio information on the information storage medium; and

a corresponding unit audio information attribute information piece.

51. (currently amended) The information storage medium according to claim 47, wherein the partial recording group information attribute information comprises:

a number of at least one unit audio information object;

playback time of the at least one unit audio information object;

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a start address of the at least one unit audio information object on the information storage medium; and

an end address of the at least one unit audio information object on the information storage medium; and

a corresponding unit audio information attribute information piece.

52. (currently amended) A reproduction apparatus for reproducing information from an information storage medium, wherein said information storage medium comprises:

a recording information area; and

an aggregate attribute information area,

wherein the recording information area comprises:

a partial recording group information area where one or more partial recording group information objects are recorded, each of the partial recording group information objects including one or more unit audio information objects which are logically defined; and

a control data area where control data including partial recording group information attribute information is recorded, the control data corresponding to each of the partial recording group information objects and controlling the one or more unit audio information objects included in the corresponding partial recording group information objects in a predetermined order, the partial recording group information attribute information indicating attributes of the one or more all of the unit audio information objects included in the group recording information objects and wherein

one or more unit audio information attribute information pieces are collectively recorded in the aggregate attribute information area, the one or more unit audio information attribute information pieces corresponding to each of the unit audio information objects and indicating attributes of the corresponding unit audio information objects respectively, and wherein the aggregate attribute information area is formed at a position on the information storage medium such that the one or more unit audio information attribute information pieces can be detected prior to the one or more partial recording group information objects and the control data.

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wherein the one or more unit audio information attribute information pieces are recorded in a one-to-one correspondence between each of attributes and each of the corresponding unit audio information.

and the reproduction apparatus comprising:

a detecting unit which detects the one or more unit audio information attribute information pieces from the aggregate information area; and

a reproducing unit which reproduces the one or more unit audio information objects based on the detected one or more unit audio information attribute information pieces.

- 53. (previously presented) The reproduction apparatus according to claim 52, wherein the aggregate attribute information area is formed within a management information area where management information is recorded, the management information being information to manage information recorded on the information storage medium.
- 54. (currently amended) The reproduction apparatus according to claim 52, wherein at least one unit audio information attribute information piece comprises:

information indicating a sampling frequency of at least one unit audio information object; and

a quantization bit number of the at least one unit audio information object corresponding to the at least one unit audio information attribute information piece.

55. (currently amended) The reproduction apparatus according to claim 52, wherein at least one unit audio information attribute information piece comprises:

information indicating a sampling frequency of at least one unit audio information object; and

a quantization bit number of the at least one unit audio information object corresponding to the at least one unit audio information attribute information piece, and wherein

the aggregate attribute information area is formed within a management information area where management information is recorded, the management

information being information to manage information recorded on the information storage medium.

56. (currently amended) The information storage medium according to claim 52, wherein the partial recording group information attribute information comprises:

a number of at least one unit audio information object;

playback time of the at least one unit audio information object;

a start address of the at least one unit audio information object on the information storage medium; and

an end address of the at least one unit audio information on the information storage medium; and

a corresponding unit audio information attribute information piece.

57. (currently amended) The reproduction apparatus according to claim 52, wherein the partial recording group information attribute information comprises:

a number of at least one unit audio information object;

playback time of the at least one unit audio information object;

a start address of the at least one unit audio information object on the information storage medium; and

an end address of the at least one unit audio information on the information storage medium; and

a corresponding unit audio information attribute information piece, and wherein the aggregate attribute information area is formed within a management information area where management information is recorded, the management information being information to manage information recorded on the information storage medium.

- 58. (currently amended) The reproduction apparatus storage medium according to claim
- 52, wherein the partial recording group information attribute information comprises:

a number of at least one unit audio information object;

playback time of the at least one unit audio information object;

a start address of the at least one unit audio information object on the information storage medium; and

an end address of the at least one unit audio information on the information storage medium; and

a corresponding unit audio information attribute information piece, and wherein the corresponding unit audio information attribute information piece comprises:

information indicating a sampling frequency of the at least one unit audio information object; and

a quantization bit number of the at least one unit audio information object corresponding to the corresponding unit audio information attribute information piece.

- 59. (currently amended) The reproduction apparatus storage medium according to claim
- 52, wherein the partial recording group information attribute information comprises:

a number of at least one unit audio information object;

playback time of the at least one unit audio information object;

a start address of the at least one unit audio information object on the information storage medium; and

an end address of the at least one unit audio information object on the information storage medium; and

a corresponding unit audio information attribute information piece, and wherein the corresponding unit audio information attribute information piece comprises,

information indicating a sampling frequency of the at least one unit audio information object; and

a quantization bit number of the at least one unit audio information object corresponding to the corresponding unit audio information attribute information piece, and wherein the aggregate attribute information area is formed within a management information area where management information is recorded, the management information being information to manage information recorded on the information storage medium.

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60. (currently amended) A reproduction method for reproducing information from an information storage medium, wherein said information storage medium comprises:

a recording information area and

an aggregate attribute information area,

wherein the recording information area comprises:

a partial recording group information area where one or more partial recording group information objects are recorded, each of the partial recording group information objects including one or more unit audio information objects which are logically defined; and

a control data area where control data including partial recording group information attribute information is recorded, the control data corresponding to each of the partial recording group information objects and controlling the one or more unit audio information objects included in the corresponding partial recording group information objects in a predetermined order, the partial recording group information attribute information indicating attributes of the one or more all of the unit audio information objects included in the group recording information objects and wherein

one or more unit audio information attribute information pieces are collectively recorded in the aggregate attribute information area, the one or more unit audio information attribute information pieces corresponding to each of the unit audio information objects and indicating attributes of the corresponding unit audio information objects respectively, and wherein the aggregate attribute information area is formed at a position on the information storage medium such that the one or more unit audio information attribute information pieces can be detected prior to the one or more partial recording group information objects and the control data,

wherein the one or more unit audio information attribute information pieces are recorded in a one-to-one correspondence between each of attributes and each of the corresponding unit audio information.

and the reproduction method comprising:

detecting the one or more unit audio information attribute information pieces from the aggregate information area; and reproducing the one or more unit audio information objects based on the detected one or more unit audio information attribute information pieces.

- 61. (previously presented) The reproduction method according to claim 60, wherein the aggregate attribute information area is formed within a management information area where management information is recorded, the management information being information to manage information recorded on the information storage medium.
- 62. (currently amended) The reproduction method according to claim 60, wherein at least one unit audio information attribute information piece comprises:

information indicating a sampling frequency of at least one unit audio information object; and

a quantization bit number of the at least one unit audio information object corresponding to the at least one unit audio information attribute information piece.

63. (currently amended) The reproduction method according to claim 60, wherein at least one unit audio information attribute information piece comprises:

information indicating a sampling frequency of at least one unit audio information object; and

a quantization bit number of the at least one unit audio information object corresponding to the at least one unit audio information attribute information piece, and wherein

the aggregate attribute information area is formed within a management information area where management information is recorded, the management information being information to manage information recorded on the information storage medium.

64. (currently amended) The reproduction method according to claim 60, wherein the partial recording group information attribute information comprises:

a number of at least one unit audio information object; playback time of the at least one unit audio information object;

a start address of the at least one unit audio information object on the information storage medium; and

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an end address of the at least one unit audio information on the information storage medium; and

a corresponding unit audio information attribute information piece.

65. (currently amended) The reproduction method according to claim 60, wherein the partial recording group information attribute information comprises:

a number of at least one unit audio information object;

playback time of the at least one unit audio information object;

a start address of the at least one unit audio information object on the information storage medium; and

an end address of the at least one unit audio information object on the information storage medium; and

a corresponding unit audio information attribute information piece, and wherein the aggregate attribute information area is formed within a management information area where management information is recorded, the management information being information to manage information recorded on the information storage medium.

66. (currently amended) The reproduction method according to claim 60, wherein the partial recording group information attribute information comprises:

a number of at least one unit audio information object;

playback time of the at least one unit audio information object;

a start address of the at least one unit audio information object on the information storage medium; and

an end address of the at least one unit audio information on the information storage medium; and

a corresponding unit audio information attribute information piece, and wherein the corresponding unit audio information attribute information piece comprises: and

information indicating a sampling frequency of the at least one unit audio information object; and

a quantization bit number of the at least one unit audio information object corresponding to the corresponding unit audio information attribute information piece.

67. (currently amended) The reproduction method according to claim 60, wherein the partial recording group information attribute information comprises:

a number of at least one unit audio information object;

playback time of the at least one unit audio information object;

a start address of the at least one unit audio information object on the information storage medium; and

an end address of the at least one unit audio information on the information storage medium; and

a corresponding unit audio information attribute information piece, and wherein the corresponding unit audio information attribute information piece comprises:

information indicating a sampling frequency of the at least one unit audio information object; and

a quantization bit number of the at least one unit audio information object corresponding to the corresponding unit audio information attribute information piece, and wherein the aggregate attribute information area is formed within a management information area where management information is recorded, the management information being information to manage information recorded on the information storage medium.

68. (currently amended) An information recording apparatus comprising:

a first generating device which generates recording information comprising one or more partial recording group information objects, each of the partial recording group information objects including one or more unit audio information objects which are logically defined;

a second generating device which generates additional information comprising control data and unit audio information attribute information pieces, the control data

corresponding to each of the partial recording group information objects and controlling the one or more unit audio information objects included in the corresponding partial recording group information objects in a predetermined order, and including partial recording group information attribute information indicating attributes of the one or more all of the unit audio information objects included in the group recording information objects, and the unit audio information attribute information pieces indicating attributes of the one or more unit audio information objects respectively; and

a recording device which records the recording information and the additional information into an information storage medium,

wherein the unit audio information attribute information pieces are recorded at a position on the information storage medium such that the unit audio information attribute information pieces can be detected prior to the one or more partial recording group information objects and the control data.

wherein the one or more unit audio information attribute information pieces are recorded in a one-to-one correspondence between each of attributes and each of the corresponding unit audio information.

69. (currently amended) An information recording method comprising:

a first generating process for generating recording information comprising one or more partial recording group information objects including one or more unit audio information objects which are logically defined;

a second generating process for generating additional information comprising control data and unit audio information attribute information pieces, the control data corresponding to each of the partial recording group information objects and controlling the one or more unit audio information objects included in the corresponding partial recording group information objects in a predetermined order, and including partial recording group information attribute information indicating attributes of the one or more all of the unit audio information objects included in the group recording information objects, and the audio information attribute information pieces indicating attributes of the one or more unit audio information objects respectively; and

a recording process for recording the recording information and the additional information into an information storage medium,

wherein the unit audio information attribute information pieces are recorded at a position on the information storage medium such that the unit audio information attribute information pieces can be detected prior to the one or more partial recording group information objects and the control data,

wherein the one or more unit audio information attribute information pieces are recorded in a one-to-one correspondence between each of attributes and each of the corresponding unit audio information.